HD-TX3-F

HDMI™ over Fiber Transmitter

Crestron® HDMI over Fiber Transmitters and Receivers deliver reliable, high-performance digital AV signal extension for use in the home, classroom, or corporate boardroom. Without any special setup or configuration, the HD-TX3-F transmitter works with an **HD-RX3-F** receiver[1] to enable wire runs up to 1000 feet over a single, thin multimode fiber strand[2]. The HD-TX3-F simultaneously handles high-definition digital video and audio, analog audio, Ethernet, USB HID, RS-232, and IR signals.

The Strengths of Fiber

A Crestron HDMI over Fiber solution lets you hide your wiring in plain sight without drilling holes or tearing into walls. Using our ultra inconspicuous **CresFiber® CLEAR** fiber optic cable[1], wiring can easily be concealed along baseboards and in corners, perfect for retrofits and historically significant interiors.

Crestron offers a full line of rugged **CresFiber** fiber optic cables and installation tools to facilitate running through conduits, walls, and ceiling spaces. HDMI over Fiber is also ideal for wiring to outdoor devices and between buildings, providing optical isolation against ground loops, lightning surges, and other electrical disturbances. Crestron even offers a range of professional AV interface cables and wall plates to complement the HD-TX3-F for a total custom installation solution.

Robust HD Signal Extension — It's Not a Stretch!

Where other HDMI signal extenders prove undependable, or rely on performance degrading compression, Crestron HDMI over Fiber delivers uncompromised signal extension of uncompressed HDMI 1.3a with Deep Color and 7.1 channel lossless audio. A single HDMI input provides for the connection of any high-definition video disc player, receiver, computer, or other source, and can even support DVI and DisplayPort Multimode signals using an appropriate adapter.[3] A mini-TRS stereo audio input is also provided to accept analog audio signals from any unbalanced line-level or headphone output.

A Fully Linked Solution

In addition to video and audio, the HD-TX3-F provides for the extension of numerous networking and control signals for a true one-wire AV interface solution. Its 10/100 Ethernet port affords high-speed LAN connectivity over the full 1000 ft length of fiber. The USB HID port allows a USB HID-compliant keyboard and mouse at the receiver end to control a computer or other host device located at the transmitter end. Additional IR and bidirectional RS-232 control signals may also be routed to control a display device and other equipment.

Comprehensive without Complication

Crestron HDMI over Fiber affords a very dependable signal extension solution that's simple to implement. No special configuration or programming is required — just connect your source and display and enjoy high-quality HD video and audio from 1000 feet away. The HD-TX3-F is housed in an attractive, compact enclosure, with provisions for mounting to any flat surface, or to one rail of a 19" EIA equipment rack.

> Extends uncompressed digital video, audio, networking, HID, and control signals 1000 feet over a single multimode fiber

> Works reliably without any programming or configuration

> Supports HDMI 1.3a with Deep Color

> Supports 7.1 channel lossless audio up to 48 kHz

> Also compatible with DVI and DisplayPort Multimode[3]

> Includes analog stereo audio input

> Handles resolutions up to 1920x1200 and 1080p60

> Passes CEC, EDID and HDCP

> Supports 100Base-T Fast Ethernet

> Includes universal IR repeater up to 192kHz

> Extends bidirectional RS-232 up to 115k Baud

> Includes built-in USB HID mouse/keyboard extender

> Provides electrical isolation for outdoor runs

> 12VDC power pack included

SPECIFICATIONS

Video

Input Signal Types: HDMI, DVI[3], DisplayPort Multimode[3]
Formats: HDMI v.1.3a w/Deep Color, DVI v.1.0, HDCP v.1.2 content protection support

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Resolutions, Progressive: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI v.1.3a up to 165MHz pixel clock
Resolutions, Interlaced: 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI v.1.3a up to 165MHz pixel clock

Audio

Input Signal Types: HDMI v.1.3a supporting lossless multi-channel up to 7.1, DisplayPort Multimode[3], analog stereo
Formats: Dolby Digital 5.1, Dolby Digital EX 5.1, DTS 5.1, DTS-ES Matrix 5.1, DTS-ES Discrete 6.1, DTS 96/24 5.1, up to 8ch PCM
Sampling Rate: Up to 48 kHz
Formats, Analog: Stereo 2-channel
Analog-To-Digital Conversion: 24-bit 48 kHz
Performance (analog):: Frequency Response: 20Hz to 20kHz ±0.75dB;
S/N Ratio: >90dB, 20Hz to 20kHz A-weighted;
THD+N: <0.05% @ 1kHz;
Stereo Separation: >90dB

Communications

Ethernet: 10BaseT/100BaseTX Ethernet signal extension
USB: Supports USB HID class devices
Fiber[2]: 50/125 or 62.5/125 µm multi-mode optical fiber, 1000 ft (300 m) cable length, 850 nm & 1310 nm transmit, 1550 nm receive

Connectors

IR IN: (1) 2-pin 3.5mm detachable terminal block;
IR/Serial repeater input port;
IR signal input up to 192 kHz;
1-way serial TTL/RS-232 (0-5 Volts) up to 19200 baud
COM: (1) 3-pin 3.5mm detachable terminal block;
Bidirectional RS-232 port;
Up to 115.2k baud, software handshaking support
MM OPTICAL: (1) SC female optical fiber connector;
Multimode fiber output;
Connects to MM OPTICAL port of an **HD-RX3-F** receiver via **CresFiber** fiber optic cable[2]
G: (1) 6-32 screw, chassis ground lug
12VDC 1.5A: (1) 2.5mm barrel DC power jack
12 Volt DC power input (**PW-1215WU** power pack included)
AUDIO: (1) 3.5mm TRS mini phone jack;
Unbalanced stereo line-level audio input;
Input Impedance: 10k ohms;
Input Level: 2 Vrms maximum
USB HID: (1) USB Type B female;
USB 1.1 device port for connection to the USB host interface of a USB HID-compliant host device
HDMI IN: (1) 19-pin Type A HDMI female;
HDMI digital video/audio input
LAN: (1) 8-wire RJ45 female w/2 LED indicators;
10BaseT/100BaseTX Ethernet port;
Green LED indicates link status;
Amber LED indicates Ethernet activity
Note: Mini USB port is for factory use only.

Indicator

(1) green LED, indicates operating power supplied via external power supply

Environmental

Temperature: 32° to 104°F (0° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Aluminum w/polycarbonate label overlay and (4) integral mounting flanges
Mounting: Freestanding, surface mount, or attach to a single rack rail

Dimensions

Height: 5.92 in (150 mm)
Width: 4.56 in (116 mm)
Depth: 1.43 in (37 mm)

Weight

17.9 oz (508 g)

Available Models

HD-TX3-F: HDMI™ over Fiber Transmitter
[Available March, 2010]

Included Accessories

PW-1215WU Wall Mount Power Pack 12VDC, 1.5A, Universal
[Included Quantity: 1]

Available Accessories

HD-RX3-F: HDMI™ over Fiber Receiver
[Available March, 2010]
CNSP-XX: Custom Serial Interface Cable
CRESFIBER-SINGLE-SC-P-1.5: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 1.5 ft
[Release Date: TBA]
CRESFIBER-SINGLE-SC-P-3: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 3 ft
[Release Date: TBA]
CRESFIBER-SINGLE-SC-P-6: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 6 ft
[Release Date: TBA]
CRESFIBER-SINGLE-SC-P-12: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 12 ft
[Release Date: TBA]
CRESFIBER-SINGLE-SC-P-20: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 20 ft
[Release Date: TBA]
CRESFIBER-SINGLE-SC-P-30: CresFiber® Simplex Fiber Optic Cable Assembly, 50/125, SC, Plenum, 30 ft
[Release Date: TBA]
CRESFIBER-SINGLE-SC-ARMORED-P-60: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 60 ft
[Available March, 2010]
CRESFIBER-SINGLE-SC-ARMORED-P-100: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 100 ft
[Available March, 2010]
CRESFIBER-SINGLE-SC-ARMORED-P-200: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 200 ft
[Available March, 2010]

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CRESFIBER-SINGLE-SC-ARMORED-P-300: CresFiber® ARMORED Simplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum, 300 ft
[Available March, 2010]
CRESFIBER-SINGLE-SC-CLEAR-NP-30: CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 30 ft
[Available March, 2010]
CRESFIBER-SINGLE-SC-CLEAR-NP-60: CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 60 ft
[Available March, 2010]
CRESFIBER-SINGLE-SC-CLEAR-NP-100: CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum, 100 ft
[Available March, 2010]
CRESFIBER-NP-SP500: CresFiber® Fiber Optic Cable, 50/125 x4 breakout, non-plenum, 500 ft spool
CRESFIBER-NP-SP1000: CresFiber® Fiber Optic Cable, 50/125 x4 breakout, non-plenum, 1000 ft spool
CRESFIBER-P-SP500: CresFiber® Fiber Optic Cable, 50/125 x4 breakout, plenum, 500 ft spool
CRESFIBER-P-SP1000: CresFiber® Fiber Optic Cable, 50/125 x4 breakout, plenum, 1000 ft spool
CRESFIBER-CONN-SC50UM-12: CresFiber® Fiber Optic Cable Connector (AFL Telecommunications), SC 50µm, 12-Pack
CBL-HD-1.5: Crestron® Certified HDMI™ Interface Cable, 1.5 ft
CBL-HD-3: Crestron® Certified HDMI™ Interface Cable, 3 ft
CBL-HD-6: Crestron® Certified HDMI™ Interface Cable, 6 ft
CBL-HD-12: Crestron® Certified HDMI™ Interface Cable, 12 ft
CBL-HD-20: Crestron® Certified HDMI™ Interface Cable, 20 ft
CBL-HD-30: Crestron® Certified HDMI™ Interface Cable, 30 ft
CBL-DP-HD-1.5: Crestron® Certified DisplayPort to HDMI™ Interface Cable, 1.5 ft
[Release Date: TBA]
CBL-DP-HD-3: Crestron® Certified DisplayPort to HDMI™ Interface Cable, 3 ft
[Release Date: TBA]
CBL-DP-HD-6: Crestron® Certified DisplayPort to HDMI™ Interface Cable, 6 ft
[Release Date: TBA]
CBL-DP-HD-12: Crestron® Certified DisplayPort to HDMI™ Interface Cable, 12 ft
[Release Date: TBA]
CBL-DP-HD-20: Crestron® Certified DisplayPort to HDMI™ Interface Cable, 20 ft
[Release Date: TBA]
CBL-DP-HD-30: Crestron® Certified DisplayPort to HDMI™ Interface Cable, 30 ft
[Release Date: TBA]
CBL-HD-DVI-1.5: Crestron® Certified HDMI™ to DVI Interface Cable, 1.5 ft
CBL-HD-DVI-3: Crestron® Certified HDMI™ to DVI Interface Cable, 3 ft
CBL-HD-DVI-6: Crestron® Certified HDMI™ to DVI Interface Cable, 6 ft
CBL-HD-DVI-12: Crestron® Certified HDMI™ to DVI Interface Cable, 12 ft
CBL-HD-DVI-20: Crestron® Certified HDMI™ to DVI Interface Cable, 20 ft
CBL-HD-DVI-30: Crestron® Certified HDMI™ to DVI Interface Cable, 30 ft
CBL-AUDIO-1.5: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 1.5 ft
CBL-AUDIO-3: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 3 ft
CBL-AUDIO-6: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 6 ft
CBL-AUDIO-12: Crestron® Certified Mini-TRS Stereo Audio Interface Cable, 12 ft
MP-WP150-B: Media Presentation Wall Plate, Black - HDMI w/Mini-TRS Stereo Audio
MP-WP150-W: Media Presentation Wall Plate, White - HDMI w/Mini-TRS Stereo Audio
MP-WP152-B: Media Presentation Wall Plate, Black - HDMI
MP-WP152-W: Media Presentation Wall Plate, White - HDMI
MP-WP160-B: Media Presentation Wall Plate, Black - DisplayPort w/Mini-TRS Stereo Audio
MP-WP160-W: Media Presentation Wall Plate, White - DisplayPort w/Mini-TRS Stereo Audio
MP-WP162-B: Media Presentation Wall Plate, Black - DisplayPort
MP-WP162-W: Media Presentation Wall Plate, White - DisplayPort
MP-WP140-B: Media Presentation Wall Plate, Black - DVI-I w/Mini-TRS Stereo Audio
MP-WP140-W: Media Presentation Wall Plate, White - DVI-I w/Mini-TRS Stereo Audio

Notes:
1. Item sold separately.

2. For MM OPTICAL fiber wiring, use **CresFiber** or other quality 50/125 or 62.5/125 µm simplex multimode fiber optic cable. To achieve maximum distance the cable should be rated for at least 500MHz*km effective modal bandwidth (EMB) at both 850nm and 1300nm.

3. HDMI requires an appropriate adapter or interface cable to accommodate a DVI or DisplayPort Multimode signal. **CBL-HD-DVI** and **CBL-DP-HD** interface cables available separately.

HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

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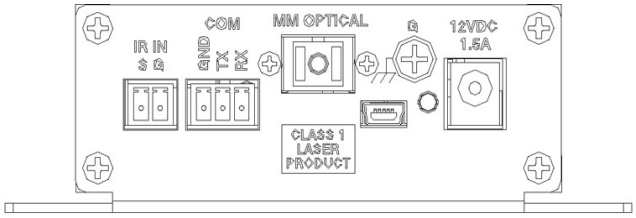

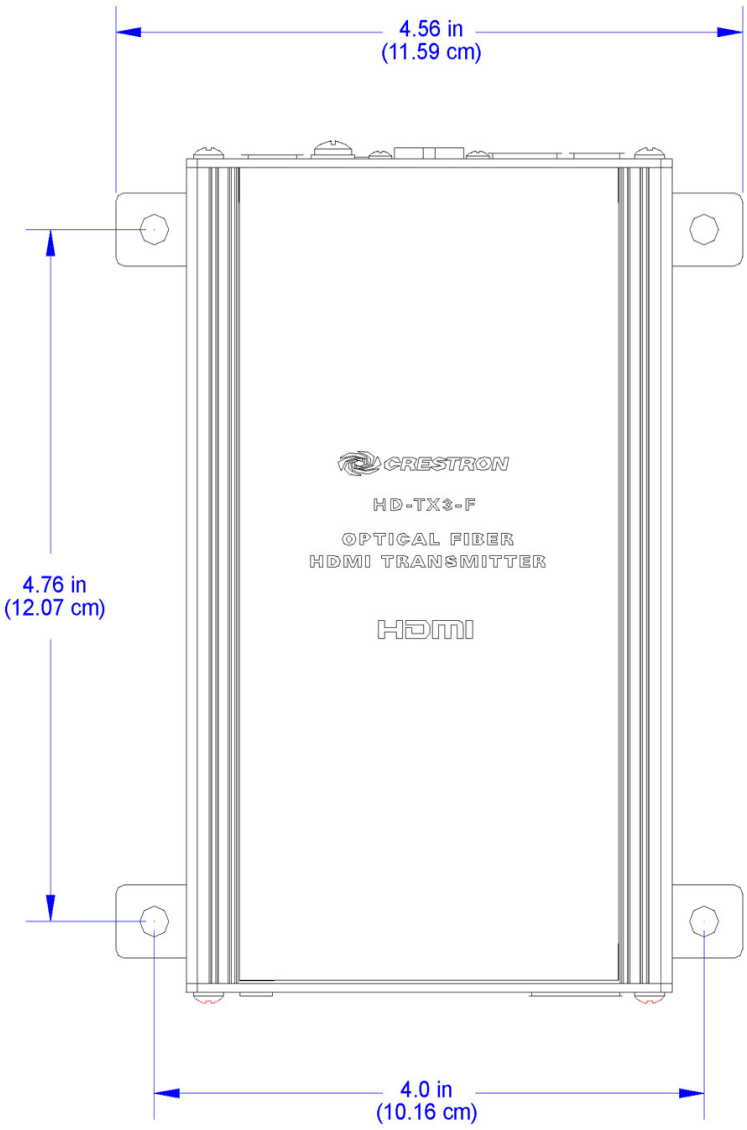

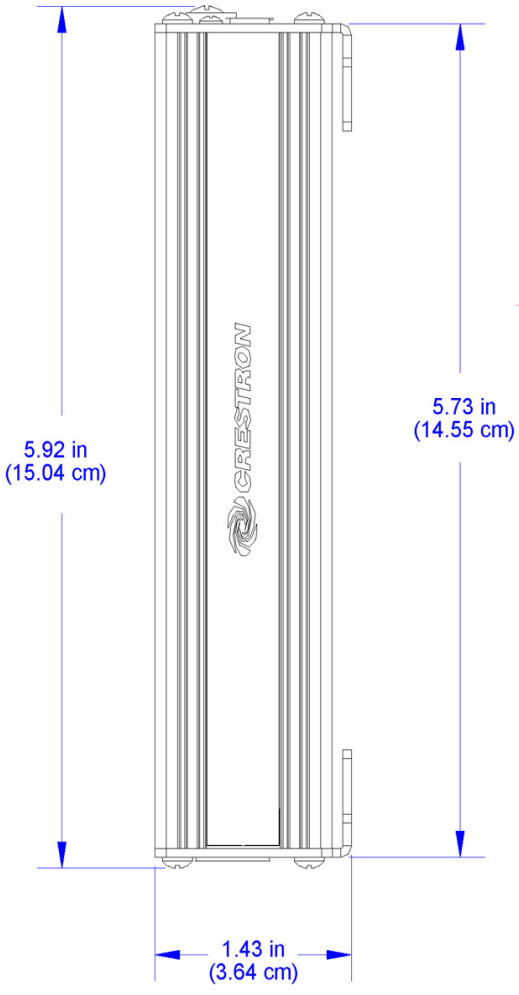

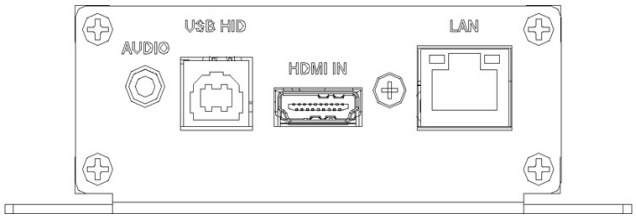

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